

# Improving ergonomics in a manufacturing environment

## Case Study 5



### Rationale

The Insured are a large European and UK based manufacturer of automotive parts operating from two sites in the North of England. The nature of their business necessitates the frequent changing of tooling and production lines per shift due to the bespoke nature of parts for individual client orders, often at short notice.

QBE analysis of claims, accident and production metrics in 2006 revealed that around a third of all claims and RIDDOR/other reported accidents were related to manual handling incidents and upper limb conditions from poor ergonomic activities surrounding the production lines. The main issues being:-

- 440 tool changes per week
- Poor production/process design layout
- Repetitive packing and over stretching into deep boxes & crates
- Heavy lifting from machines to low level pallets and floor placed boxes & crates
- Inadequate workstation space and design layout
- Insufficient health warnings, information and Occupational Health intervention.

### Strategy

A business case for change was presented to the Insured's management resulting in a desire to improve the production methods, the working environment and employee working conditions. Targets were set to improve production efficiencies whilst also reducing accidents and lost hours from manual handling incidents and musculoskeletal disorder (MSD) conditions.

An improvement strategy was then devised between QBE's Risk Manager and the Insured's senior management, while engaging the support of the Insured's other stakeholders. This included:-

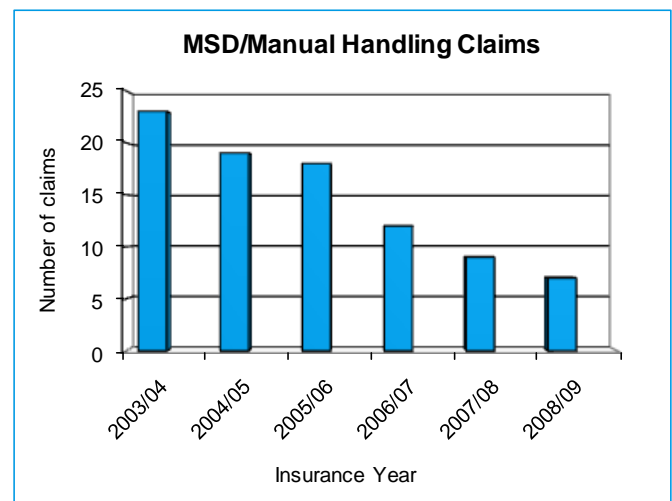
- Task specific risk assessment as opposed to generic assessment
- Introduction of the HSE Mac Tool, including training and supervision
- Engineering design solutions to ease and improve process flow
- Scissor lifts to reduce excessive bending and leaning into boxes & crates
- Job rotation and creation of a multi skilled workforce, thus reducing exposure

- Occupational health information for MSDs, monitoring and intervention.

### Impacts

Between 2004 and 2008 the following outcomes were achieved:-

- 30% reduction in tool changes resulting in production and efficiency savings
- 55% reduction in manual handling accidents
- 50% reduction in lost hours from 762 hours in 2004 to 383 in 2008
- Increased production of units from 80,000 a week in 2005 to 120,000 in 2008
- The creation of a multi skilled work force and interchangeable workforce reducing MSD exposure to employees
- Improved risk assessment and employee awareness, specific to the tasks undertaken
- Integrated management, employee and occupational health facility
- QBE have seen a significant reduction in claim numbers (see graph below).



The QBE designed Risk Management programme for change has delivered excellent improvements to production, accident and claims metrics resulting in mutual financial benefits for both organisations.

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